ABSTRACT OF THE DISCLOSURE

The present invention concerns methods for treating a disease or illness in a mammal, the method comprising administering to the mammal a composition comprising a compound in an amount effective to elicit a chemopreventative effect or a therapeutic effect or a prophylactic effect or a chemoprotective effect, the compound having the formula:

$$A - CH(D) - CO2H$$

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wherein the stereochemical configuration of the alpha carbon is predominantly R-stereoisomer or is R-stereoisomer substantially free from the S-stereoisomer and wherein A is an aliphatic moiety that is alkyl of 3 to about 30 carbon atoms, substituted alkyl of 3 to about 30 carbon atoms, alkene of 3 to about 30 carbon atoms and having from 1 to about 10 unsaturations, or substituted alkene having from 3 to about 30 carbon atoms and having from 1 to about 10 unsaturations, alkyne of 3 to about 30 carbon atoms and having from 1 to about 10 unsaturations, or substituted alkyne having from 3 to about 30 carbon atoms and having from 1 to about 10 unsaturations, about 10 unsaturations, and wherein D is alkyl of 1 to about 10 carbon atoms, or a physiologically acceptable ester or salt thereof.